REMARKS/ARGUMENTS

Claims 1-82 constitute the pending claims in the present application. Claims 48-55 were initially elected with traverse. Claims 1-47 and 56-79 are withdrawn from consideration as being drawn to a non-elected invention. Applicants will cancel these claims upon indication of allowable subject matter in the elected invention. Claims 48, 53, and 55 have been amended. Claims 81-82 have been added. No new matter is being introduced. Support for the claim amendments and the new claims is found throughout the specification. Applicants respectfully request reconsideration in view of the following remarks. Issues raised by the Examiner will be addressed below in the order they appear in the prior Office Action.

Applicants note that the Examiner has acknowledged Applicants' election of Group V (claims 48-55) and election of species of M13 and cp III, in Paper No. 10.

Applicants further note that claims 1-47, 53 (in part), 55 (in part), and 56-80 are withdrawn by the Examiner on the grounds that these claims either fall in non-elected groups or do not read on the elected species. However, Applicants point out that the previously added claim 80 depends from claim 48 and should be grouped with claims 48-55. Accordingly, Applicants respectfully request that claim 80 be considered in this application.

Objection to the Specification

The Office Action asserts that there are no SEQ ID Nos. assigned for the peptide sequences recited at pages 65, lines 1-2. As the Examiner requested, Applicants have amended the specification by identifying the two peptide sequences with proper SEQ ID NOs. Accordingly, reconsideration and withdrawal of this objection are respectfully requested.

Claim rejections under 35 U.S.C. § 112, 2nd paragraph

Claims 48-55 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse this rejection to the extent it is maintained over the claims as amended.

Specifically, the Office Action asserts that the phrase "a population of display packages" in claim 48 is inconsistent or at odds with the preceding statement which does not recite a population of display packages. Applicants have amended claim 48 to overcome the rejection.

The Office Action further asserts that the recitation "in a display mode, the chimeric gene is expressed as a fusion protein..." is not a positive characterization of the product vector. In particular, the term "mode" is allegedly unclear. Applicants respectfully submit that, when read in light of the specification, the phrases "in display mode" and "in secretion mode" are not unclear, and serve to illuminate the features of the vector being claimed. Indeed, the specification amply teaches such a "display mode" (pages 14-30) and such a "secretion mode" (pages 30-43).

For example, the specification describes that, "[i]n its 'display mode', a library of test peptides is expressed by a population of display packages to form a peptide display library. With respect to the display package on which the variegated peptide library is manifest, it will be appreciated from the discussion provided herein that the display package will preferably be able to be (i) genetically altered to encode heterologous peptide, (ii) maintained and amplified in culture, (iii) manipulated to display the peptide-containing gene product in a manner permitting the peptide to interact with a target during an affinity separation step, and (iv) affinity separated while retaining the nucleotide sequence encoding the test peptide (herein "peptide gene") such that the sequence of the peptide gene can be obtained" (page 14, lines 20-28). The specification further describes that, "[i]n the 'secretion mode,' the combinatorial peptide library, which has been enriched in the display mode, is transfected into and expressed by eukaryotic cells. In this mode, the test peptides are secreted by the host cells and screened for biological activity" (page 31, lines 1-4).

Although the above description relates to a library, one skilled in the art would understand that the same description should be applied to either a vector in the context of a library or a vector out of the context of a library. Applicants submit that, in view of the teachings of the specification and the knowledge in the art at the time of filing, the phrases "in display mode" and "in secretion mode" are both clear and definite to one skilled in the art. Therefore, reconsideration and withdrawal of rejections under 35 U.S.C. § 112, second paragraph, are respectfully requested.

Claim rejections under 35 U.S.C. § 102

Claims 48-55 are rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Larocca et al. (U.S. Pat. No. 6,054,312). Applicants respectfully traverse this rejection to the extent it is maintained over the claims as amended.

Claim 48 recites a vector comprising a chimeric gene for a chimeric protein, which chimeric gene comprises: (i) a coding sequence for a test peptide; (ii) a coding sequence for a surface protein of a display package; and (iii) RNA splice sites flanking the coding sequence for the surface protein. In particular, the vector has a special function in that, in a display mode, the chimeric gene is expressed as a fusion protein including the test peptide and the surface protein such that the test peptide can be displayed on the surface of a display packages, whereas in [the] a secretion mode, the test peptide is expressed without the surface protein as a result of the coding sequence for the surface protein being removed by RNA splicing.

Larocca et al. teach a vector comprising a chimeric gene comprising FGF2-3 fused to a gene encoding the coat protein III or VIII (see column 37, line 65 to column 38, line 23). Contrary to the Examiner's assertion, this specific vector does not comprise a RNA splice site. Although Larocca et al. generally mention that the construct may include "splice donor and acceptor sites," Larocca et al. fail to teach RNA splice sites flanking the coding sequence for the surface protein as recited in claim 48. It is well known that different locations of the splice sites can give rise to distinct vectors. Thus, in the absence of such teachings, Larocca et al. do not anticipate the vector as recited in claim 48.

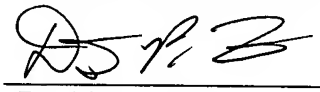
In addition, Larocca et al. do not contemplate expression of the FGF2-3 without the surface protein as a result of the coding sequence for the surface protein being removed by RNA splicing. Larocca et al. suggest incorporation of some DNA element useful for "expression and maintenance of the construct in mammalian cells or other eukaryotic cells," and describe expression of FGF-fusion phage in COS cells. However, Larocca et al. appear to express the entire chimeric/fusion protein rather than the FGF protein alone. Accordingly, Larocca et al. do not apparently teach this limitation, nor any advantage or motivation to obtaining free proteins (i.e., without being fused to the surface protein) in their invention.

Based on the above reasons, Applicants submit that Larocca et al. do not anticipate the pending claims. Reconsideration and withdrawal of rejections under 35 U.S.C. § 102, are respectfully requested.

CONCLUSION

The Examiner may address any questions raised by this submission to the undersigned at 617-951-7000. Should an extension of time be required, Applicants hereby petition for same and request that the extension fee and any other fee required for timely consideration of this submission be charged to **Deposit Account No. 18-1945.**

Respectfully Submitted,



David P. Halstead
Reg. No. 44,735

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Customer No: 28120
Docketing Specialist
Ropes & Gray
One International Place
Boston, MA 02110
Phone: 617-951-7000
Fax: 617-951-7050